IN THE CLAIMS

1. (Currently Amended) A method for transparently recovering from a coupling facility failure, ~~said~~ the method comprising the steps of:

a) following the failure of a coupling facility, preventing access to ~~said~~the coupling facility;

b) analyzing a cache control structure of the coupling facility to determin~~ing~~ which data was previously assigned to ~~said~~ the coupling facility;

c) performing a nominate cache process to select~~ing~~ a new storage location for ~~said~~ the data previously assigned to ~~said~~ the coupling facility; and

d) assigning ~~said~~ the data previously assigned to ~~said~~ the coupling facility to a new storage location, ~~said~~ wherein steps a) through d) are performed without requiring preallocation of ~~white~~ storage space in ~~said~~ the new storage location prior to the ~~said failure of said~~ coupling facility failure.

2. (Original) The method as recited in Claim 1 wherein said method comprises recovering from said coupling facility failure in a parallel sysplex configuration.

3. (Original) The method as recited in Claim 1 wherein said step a) comprises obtaining serialization on a cache control structure of said coupling facility to prevent said access to said coupling facility.

4. (Original) The method as recited in Claim 3 wherein said step b) comprises analyzing said cache control structure of said coupling facility to determine which of said data was previously assigned to said coupling facility.

5. (Original) The method as recited in Claim 3 wherein said serialization stops any read or write access to said coupling facility and prevents the assignment of new data to said coupling facility.

6. (Original) The method as recited in Claim 1 wherein said step c) comprises performing a nominate cache process to select said new storage location for said data previously assigned to said coupling facility.

7. (Original) The method as recited in Claim 1 wherein said step d) comprises the steps of:

d1) invalidating buffers associated with said data previously assigned to said coupling facility; and

d2) moving a control structure of said data previously assigned to said coupling facility to a cache control structure representing said new storage location

8. (Original) The method as recited in Claim 7 further comprising the step of:

e) releasing said serialization on said cache control structure of said coupling facility such that read or write attempts to said coupling facility will prompt an internal retry which directs said read or write attempts to said new storage location.

9. (Original) The method as recited in Claim 8 further comprising the step of:

f) providing notification that a replacement for said failed coupling facility is available.

10. (Original) The method as recited in Claim 1 further comprising the step of

c) employing steps a) through d) in a dual operation mode in conjunction with a conventional rebuilding technique.

11. (Original) In a parallel sysplex configuration, a method for recovering from a coupling facility failure, said method comprising the steps of

a) following the failure of a coupling facility in a parallel sysplex configuration, obtaining serialization on a cache control structure of said coupling facility to prevent said access to said coupling facility;

b) analyzing said cache control structure of said coupling facility to determine which data was previously assigned to said coupling facility;

c) performing a nominate cache process to select a new storage location for said data previously assigned to said coupling facility; and

d) assigning said data previously assigned to said coupling facility to said new storage location, said step of assigning said data previously assigned to said coupling facility to said new storage location further comprising the steps of:

d1) invalidating buffers associated with said data previously assigned to said coupling facility; and

d2) moving a control structure of said data previously assigned to said coupling facility to a cache control structure representing said new storage location, said steps a) through d2) performed without requiring preallocation of white space in said new storage location prior to said failure of said coupling facility.

12. (Original) The method as recited in Claim 11 wherein said serialization stops any read or write access to said coupling facility and prevents the assignment of new data to said coupling facility.

13. (Original) The method as recited in Claim 11 further comprising the step of:

e) releasing said serialization on said cache control structure of said coupling facility such that read or write attempts to said coupling facility will prompt an internal retry which directs said read or write attempts to said new storage location.

14. (Original) The method as recited in Claim 13 further comprising the step of:

e) releasing said serialization on said cache control structure of said coupling facility such that read or write attempts to said coupling facility will prompt an internal retry which directs said read or write attempts to said new storage location.

15. (Original) The method as recited in Claim 14 further comprising the step of:

U providing notification that a replacement for said failed coupling facility is available.

16. (Original) The method as recited in Claim 11 further comprising the step of

e) employing steps a) through d2) in a dual operation mode in conjunction with a conventional rebuilding technique.

17. (Currently Amended) A computer readable medium having computer readable code stored thereon for causing a computer to perform the coupling facility failure recovery steps of

a) ~~following the failure of a coupling facility,~~ obtaining serialization on a cache control structure of a coupling facility in a parallel sysplex configuration to preventing access to ~~said~~ the coupling facility subsequent to a coupling facility failure;

b) analyzing a cache control structure of the coupling facility to determine~~ing~~ which data was previously assigned to ~~said~~ the coupling facility;

c) performing a nominate cache process to selecting a new storage location for ~~said~~

the data previously assigned to ~~said~~ the coupling facility; and

d) assigning ~~said~~ the data previously assigned to ~~said~~ the coupling facility to ~~said~~the new storage location, ~~said~~ wherein steps a) through d) are performed without requiring preallocation of ~~white~~ storage space in ~~said~~ the new storage location prior to ~~said failure of~~ ~~said~~the coupling facility failure.

18. (Original) The method as recited in Claim 17 wherein said computer readable medium further includes computer readable code stored thereon for causing said computer to perform said steps of recovering from said coupling facility failure in a parallel sysplex configuration.

19. (Original) The method as recited in Claim 17 wherein said computer readable medium further includes computer readable code stored thereon for causing said computer performing said step a) to obtain serialization on a cache control structure of said coupling facility to prevent said access to said coupling facility.

20. (Original) The method as recited in Claim 19 wherein said computer readable medium further includes computer readable code stored thereon for causing said computer performing said step a) to cause said serialization to stop any read or write access to said coupling facility and prevent the assignment of new data to said coupling facility.

21. (Original) The method as recited in Claim 19 wherein said computer readable medium further includes computer readable code stored thereon for causing said computer performing said step b) to analyze said cache control structure of said coupling facility to determine which of said data was previously assigned to said coupling facility.

22. (Original) The method as recited in Claim 17 wherein said computer readable medium further includes computer readable code stored thereon for causing said computer performing said step c) to perform a nominate cache process to select said new storage location for said data previously assigned to said coupling S facility.

23. (Original) The method as recited in Claim 17 wherein said computer readable medium further includes computer readable code stored thereon for causing said computer performing said step d) to perform the steps of

d1) invalidating buffers associated with said data previously assigned to said coupling facility; and

d2) moving a control structure of said data previously assigned to said coupling facility to a cache control structure representing said new storage location.

24. (Original) The method as recited in Claim 20 wherein said computer readable

medium further includes computer readable code stored thereon for causing said computer to further perform the step of

e) releasing said serialization on said cache control structure of said coupling facility such that read or write attempts to said coupling facility will prompt an internal retry which directs said read or write attempts to said new storage location.

25. (Original) The method as recited in Claim 24 wherein said computer readable medium further includes computer readable code stored thereon for causing said computer to further perform the step of

U providing notification that a replacement for said failed coupling facility is available.

26. (Original) The method as recited in Claim 17 wherein said computer readable medium further includes computer readable code stored thereon for causing said computer to further perform the step of

e) employing steps a) through d) in a dual operation mode in conjunction with a conventional rebuilding technique.

27. (Currently Amended) A parallel sysplex computer system comprising:

a plurality of computer systems;

a shared direct access storage device coupled to ~~said~~ the plurality of computer

systems;

a coupling facility coupled to ~~said~~ the plurality of computer systems;

a processor coupled to ~~said~~ the coupling facility;

a computer readable memory coupled to communicate with ~~said~~ the processor, ~~said~~ wherein processor ~~for performing~~ performs the coupling facility failure recovery steps of

a) following the failure of ~~said~~ the coupling facility,

determining which data was previously assigned to said the coupling facility;

b) preventing access to ~~said~~ the coupling facility;

c) selecting a new storage location for ~~said~~ the data previously assigned to ~~said~~ the coupling facility; and

d) assigning ~~said~~ the data previously assigned to ~~said~~the coupling facility to ~~said~~ the new storage location, ~~said~~ the step of assigning the data previously assigned to the coupling facility to the new storage location further comprises:

~~-~~d1) invalidating buffers associated with the data previously assigned to the coupling facility;

wherein steps a) through d) are performed without requiring preallocation of ~~white~~ storage space in ~~said~~ the new storage location prior to ~~said failure of said~~the coupling facility failure.

28. (Original) The parallel sysplex computer system of Claim 27 wherein said

processor performs said step a) by obtaining serialization on a cache control structure of said coupling facility to prevent said access to said coupling facility.

29. (Original) The parallel sysplex computer system of Claim 28 wherein said processor performs said step b) by analyzing said cache control structure of said coupling facility to determine which of said data was previously assigned to said coupling facility.

30. (Original) The parallel sysplex computer system of Claim 28 wherein said serialization stops any read or write access to said coupling facility and prevents the assignment of new data to said coupling facility.

31. (Original) The parallel sysplex computer system of Claim 27 wherein said processor performs said step c) by performing a nominate cache process to select said new storage location for said data previously assigned to said coupling facility.

32. (Currently Amended) The parallel sysplex computer system of Claim 27 wherein said processor performing said step d) further performs the steps of

~~d1) invalidating buffers associated with said data previously assigned to said coupling facility; and~~

d2) moving a control structure of ~~said~~ the data previously assigned to ~~said~~the coupling facility to a cache control structure representing ~~said~~ the new storage location.

33. (Original) The parallel sysplex computer system of Claim 29 wherein said processor further performs the step of

e) releasing said serialization on said cache control structure of said coupling facility such that read or write attempts to said coupling facility will prompt an internal retry which directs said read or write attempts to said new storage location.

34. (Original) The parallel sysplex computer system of Claim 33 wherein said processor further performs the step of

f) providing notification that a replacement for said failed coupling facility 4 is available.

35. (Original) The parallel sysplex computer system of Claim 33 wherein said processor further performs the step of:

e) employing steps a) through d) in a dual operation mode in conjunction 4 with a conventional rebuilding technique.

36. (Currently Amended) A method for transparently recovering from a coupling facility failure, said method comprising the steps of:

a) following the failure of a coupling facility, preventing access to said coupling facility;

b) determining which data was previously assigned to said coupling facility;

c) selecting a new storage location for said data previously assigned to said coupling facility; and

d) assigning ~~said~~ the data previously assigned to ~~said~~the coupling facility to ~~said~~ the new storage location, ~~said~~ the step of assigning data previously assigned to the coupling facility to the new storage location further comprises moving a control structure of the data previously assigned to the coupling facility to a cache control structure representing the new storage location;

wherein steps a) through d) are performed without requiring preallocation of ~~white~~ storage space in ~~said~~ the new storage location prior to ~~said failure of said~~the coupling facility failure.

37. (Original) The method as recited in Claim 36 wherein said method comprises recovering from said coupling facility failure in a parallel sysplex configuration.

38. (Original) The method as recited in Claim 36 wherein said step a) comprises obtaining serialization on a cache control structure of said coupling facility to prevent said access to said coupling facility.

39. (Original) The method as recited in Claim 38 wherein said step b) comprises analyzing said cache control structure of said coupling facility to determine which of said data was previously assigned to said coupling facility.

40. (Original) The method as recited in Claim 38 wherein said serialization stops any read or write access to said coupling facility and prevents the assignment of new data to said coupling facility.

41. (Original) The method as recited in Claim 36 wherein said step c) comprises performing a nominate cache process to select said new storage location for said data previously assigned to said coupling facility.

42. (Currently Amended) The method as recited in Claim 36 wherein said step d) comprises the steps of

~~d1)~~invalidating buffers associated with said data previously assigned to said coupling facility~~; and~~.

~~d2) moving a control structure of said data previously assigned to said coupling facility to a cache control structure representing said new storage location.~~

43. (Original) The method as recited in Claim 42 further comprising the step of

e) releasing said serialization on said cache control structure of said coupling facility such that read or write attempts to said coupling facility will prompt an internal retry which directs said read or write attempts to said new storage location.

44. (Original) The method as recited in Claim 43 further comprising the step of:

f) providing notification that a replacement for said coupling facility which failed is available.

45. (Original) The method as recited in Claim 36 further comprising the step of

e) employing steps a) through d) in a dual operation mode in conjunction with a conventional rebuilding technique.